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OHIO MAKES FINE EDUCATIONAL RECORD

Educational workers in Ohio have been actively engaged all winter and have a fine record of achievement behind them including:

91 farmers' institutes were visited by two Federal corn-borer trucks during January and February. At 53 of these meetings a specialist accompanying the truck went to the institute and discussed the subject of the corn borer on the institute program.

14,478 persons over 12 years of age went through these trucks, an average of 159 at each place.

3,752 people attended 25 institutes where trucks did not visit. At these meetings, two specialists equipped with portable exhibits talked before the groups.

2,100 farmers visited badly damaged cornfields near Port Clinton, Ohio, purchased by Ohio State University and the Ohio Experiment Station.

2,525 farmers attended low-cutting demonstrations in 48 counties.

3 lectures were given in the general session of farmers' week at the Ohio State University, Columbus, Ohio, and were broadcast by radio. Five talks were given in the department sections where the details of research problems were discussed. In addition to the lectures, two exhibits on the campus were seen by 38 per cent of the 6,740 people in attendance.

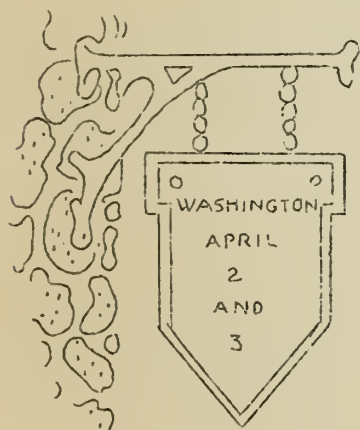
A complete State fair exhibit showed the life history of the corn borer and the damage from it in relation to the development of the corn plant from germination to harvest time. Several county fair and corn show exhibits were also made by agents with the assistance of the specialists.

Plans for the spring program include the running of questions and answers in the newspaper. Thirty such questions and answers are now being left with the editors of county and small-town papers. Six of these will be carried each week, arranged so as to be timely and to continue through April when clean-up is being made.

Address communications to Information Division, Corn-Borer Control, Extension Service, United States Department of Agriculture, Washington, D. C.

Two county-wide plowing contests and 15 to 20 plowing demonstrations are now being arranged by the engineers in Ohio. These will be held in April in the counties where borer infestation is light and in localities where plowing demonstrations were not given last year. Better plowing will be urged and special emphasis placed on covering equipment to insure the proper burial of cornstalks and stubble.

The second rural-school lesson on the corn borer prepared by the specialists at the university has just been sent to county school superintendents. These lessons are mimeographed in quantities and used as a part of the school curriculum. This lesson is centered on spring clean-up methods effective in controlling the borer. The first lessons distributed in October dealt with harvesting and winter feeding methods effective in controlling the borer.



EXTENSION CONFERENCE TO BE HELD

A conference to outline the spring program for corn-borer extension work will be held in Washington, April 2 and 3. Directors of extension, leaders in corn-borer work, and editors in charge of the informational work from the five States in the corn-borer area, will take part in this conference.

PURNELL BILL BEFORE CONGRESSIONAL COMMITTEE

The Purnell Bill appropriating another \$10,000,000 to fight the corn borer came up before the agricultural committee of the House, March 27. Representatives of the International Corn-Borer Committee, the State departments of agriculture, and the United States Department of Agriculture are appearing before the committee in connection with the administration of last year's appropriation and plans contemplated in the Purnell Bill.

The Purnell Bill as introduced this year is worded exactly like that of last year authorizing the appropriation of \$10,000,000 for a clean-up campaign.

MICHIGAN FARMERS KEEP RECORDS



One hundred and twenty-three farmers who attended a series of farm-management meetings recently held in seven counties in the State have agreed to keep a record of their corn crop, including the acreage, how much it cost to clean up for the borer, how much clean-up was required, how it was done, and also the damage caused by the borer.

A total of eight of these meetings were held under the direction of E. B. Hill, in charge of the farm-management department, Michigan State College, and Paul E. Johnston, farm-management demonstrator in corn-borer work, United States Department of Agriculture. The meetings were attended by 275 farmers.

It is planned to visit these farmers again in the summer to help them with their farm-account books and to get the record of the amount of man, horse, and tractor labor necessary to clean up the cornstalks in the 1927 cornfields. From this information a study will be made of the farm organization most profitable under corn-borer conditions and the methods of clean-up that enable the farmers to control the borer with the minimum of expense.

IN NEW YORK

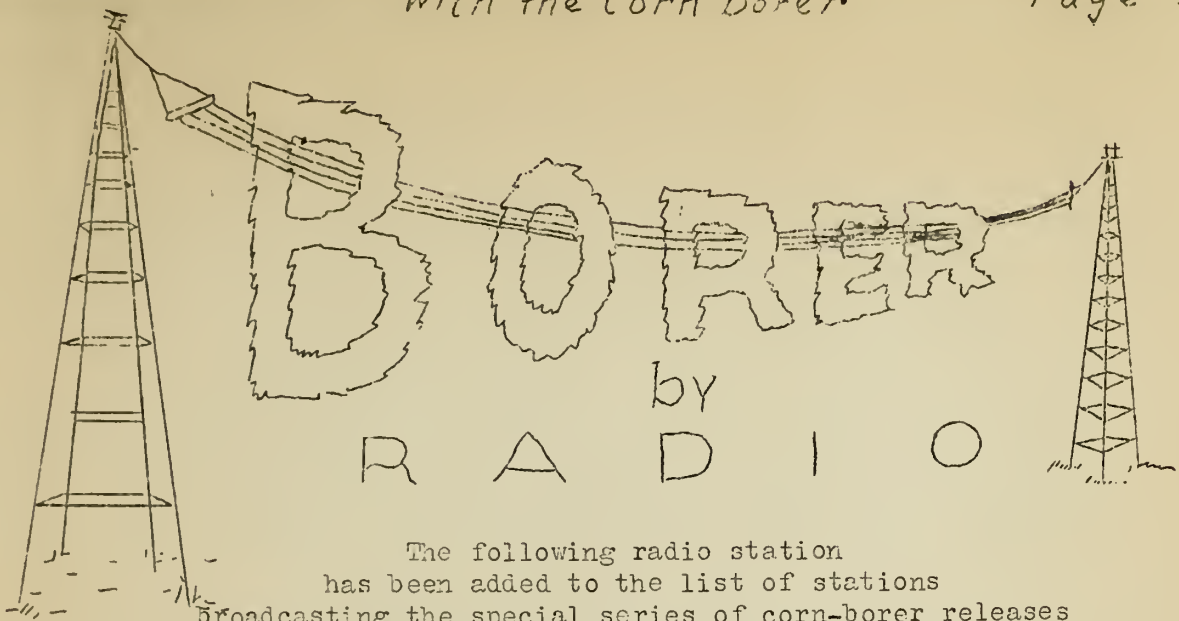
The radio talks being given from WGR, Buffalo, at 12.20 p.m. on Mondays and Wednesdays, have been scheduled with speakers and their subjects through April 30. Various phases of the corn-borer situation and methods of clean-up will be discussed by State and National specialists in these 10-minute talks.

At a corn-borer Indian council held by the Indians of the Tonawanda, Cattaraugus, and Tuscarora reservations, 100 per cent cooperation with the white man in cleaning up corn stubble and doing all possible to control the borer was pledged. The Indians also mapped out an educational program that will be followed on the reservations. This follows closely what is being done outside the Indians' territory and will consist of plowing and fitting demonstrations, movies, talks, and a visit by the United States corn-borer exhibit truck.

INFORMATIONAL ASSISTANT IN EASTERN AREA

Leroy E. Fess has been appointed district agent in corn-borer work to assist with the informational activities in Pennsylvania and New York. Mr. Fess will work with the editors of the two States and the county agents in the control area, with headquarters at Buffalo.

Mr. Fess has had extensive experience in newspaper work, having been actively engaged in it since 1919 in Rochester, Syracuse, and Buffalo. He is also familiar with farm problems, as he was reared on a farm and at one time operated a farm.



The following radio station
has been added to the list of stations
broadcasting the special series of corn-borer releases
March 5 to April 30, making a total of 39 stations:

North Carolina.....WNRC, Greensboro.

BROADCAST WEEK OF MARCH 26

ANNOUNCER: How does the corn borer spread naturally?

EXPERT: The corn-borer army uses modern methods of attack. It flies into new territory. Nearly all spread of the borer by natural means takes place during the three or four weeks in June and July during which the borer moths are flying and laying the eggs which become borers to prey upon corn. These moths fly great distances; some of them, marked for identification, have been found as much as 20 miles from places where they were liberated.

ANNOUNCER: How long does a corn-borer moth continue its operations?

EXPERT: The average life of borer moths ranges from 14 to 20 days. In this time it may lay eggs, starting a new generation of hungry young borers, over wide areas. How far it will range and in what directions are largely governed by the direction and velocity of the winds, especially the night winds, during the moth stage.

ANNOUNCER: What other means besides the dispersion of the moths will carry the borer into new territory?

EXPERT: Rivers and streams may carry plant material containing live borers. During flood seasons large quantities of old cornstalks are carried downstream from infested areas and lodge on banks in "clean" territory. To keep down spread by this means, the Federal Government carries on careful scouting and thorough clean-up along all river valleys leading out of infested areas.

ANNOUNCER: Since the moths of the corn borer carry the new generation which will damage corn this season, why not trap them when they fly next June?

EXPERT: When the fight on the corn borer started, that idea occurred to a number of persons. It was thoroughly tested out, but no sort of trap has

been found that will give control of the borer. The first type of trap tried was the light trap, which was designed to lure the moths with a light. This is one of the oldest methods used in trying to control insect pests, but it never has been successful in combating any pest.

In the corn-borer region Federal and State specialists tried lights of different types and colors - gasoline and kerosene lanterns, acetylene lights, and electric lights of white, yellow, blue, green, red, and violet. The experiments were carried out in fields where moths were known to be numerous, and at the time of greatest activity of the insects. But very few moths were attracted to the traps, no matter what sorts of lights were used.

Repeated tests wound up with the disappointing result of less than 1 per cent of the total corn-borer moths in any one vicinity attracted to light traps. Take this example: At Monroe, Mich., in the corn-borer moth season of 1927, a trap highly recommended by the manufacturer was set for five nights. During that time it caught 30 female and 20 male borer moths. In the same 4-acre field, scouts collected 1,000 egg masses.

ANNOUNCER: Well, how about bait traps?

EXPERT: No luck there, either. All sorts of baits have been tried. Various sirups, fresh and decaying fruit, honey, stale "near beer," and various aromatic oils each drew a few moths where tests were made. But none attracted a large enough number of the moths present in any field to offer promise of control.

ANNOUNCER: It seems, then, that the best time to destroy the borer is fall, winter, and spring, when it is inactive inside waste corn material.

EXPERT: Exactly. The borer is a moth for only 3 or 4 weeks, but it is a caterpillar inside the cornstalk or cob for 7 months. While it is a moth it is a highly mobile insect, hard to catch, and therefore hard to destroy. While it is a caterpillar it succumbs when its harboring places are destroyed.

ANNOUNCER: Now then, suppose you tell us about the handling of stubble fields for control of the corn borer. First, how high can the stubble be left without endangering the success of control work?

EXPERT: Stubble should not be left more than 2 inches high for good borer control. High stubble contains much of the borer population. Even in fields of comparatively low percentage of infestation, an alarming number of borers is left in the stubble, as it is the tendency of the insect to tunnel down toward the root in the fall to reach the more moist part of the stalk.

The simplest way of destroying borers in the spring is plowing under the stubble completely, leaving not a shred of stalk, cob, or leaf on the surface. Clean plowing, wherever it is possible, makes an effective control.

ANNOUNCER: But will disking a stubble field destroy the borer?

EXPERT: Absolutely not. In fact if you disk in stalks or high stubble in preparation for sowing small grain, the operation means the beginning of encouraging conditions for the growth of corn borers. The shade from the growing grain will furnish protection to the borers in the stubble and stalks about the field. Experiments bearing on this point of shade protecting borers have been made. They showed that during periods of high temperature or drought in the late spring borers in trash scattered about fields planted to corn and sugar beets had a much lower mortality than borers in fields not so planted.

ANNOUNCER: What control measures besides clean plowing can be used on a stubble field?

EXPERT: Stubble beaters, if field conditions are favorable, kill from 95 to 97 per cent of the borers.

ANNOUNCER: And what is a stubble beater, where can it be operated, and how may one be obtained?

EXPERT: A stubble beater is a light piece of machinery, drawn by a tractor. It pulverizes stubble with short, loose, knives revolving at the rate of 1,500 revolutions per minute. It gives excellent results on stubble not more than 10 inches high. It is not satisfactory when used on unattached stubble, on attached stubble in closely spaced rows, on very rough or stony ground (such ground breaks or bends the blades), or in regions where weeds carry large numbers of borers. The United States Department of Agriculture bought 800 stubble beaters for last spring's campaign. Now it is making them available to farmers in the infested area who want to use them.

